



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,340	10/03/2000	Krister Svanbro	2380-272	4790

23117 7590 10/28/2004

NIXON & VANDERHYE, PC  
1100 N GLEBE ROAD  
8TH FLOOR  
ARLINGTON, VA 22201-4714

EXAMINER

ELALLAM, AHMED

ART UNIT	PAPER NUMBER
----------	--------------

2662

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/678,340

Applicant(s)

SVANBRO ET AL.

Examiner

AHMED ELALLAM

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-26, 28-52, 54-78 and 80-104 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-9, 11-23, 28-35, 37-49, 54-61, 63-75, 80-87 and 89-101 is/are allowed.
- 6) ☒ Claim(s) 10, 24-26, 36, 50-52, 62, 76-78, 88 and 102-104 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1,4,5,6,9.
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This communication is responsive to amendment filed on June 4, 2004. The Amendment has been entered.

Claims 2-26, 28-52, 54-78, 80-104 are pending.

Claims 10, 24-26, 36, 50-52, 62, 76-78, 88, 102-104 are rejected

Claims 2-9, 11-23, 28-35, 37-49, 54-61, 63-75, 80-87, 89-101 are allowed.

### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 25, 26, 51, 52, 77, 78, 103 and 104 are rejected under 35 U.S.C. 102(e) as being anticipated by Suumaki et al, US (6,590,905), hereinafter referred to as Suumaki.

Regarding claims 25, 51, 77 and 103, Suumaki discloses a cellular telecommunication network (see figure 1A) and operation of the network that has a first entity which communicates with a second entity (telecommunication network as shown in figure 1A where the UE and all the network nodes include a protocol entity, see column 2, lines 38-41 for communication between a first entity and a second entity between any network component) by sending a packet having a compressed header (sending packets as shown in figure 6 and 7 having a compressed header, see header compression procedure column 5, lines 18-62), characterized in that the first entity also

Art Unit: 2662

sends to the second entity a header compression key associated with the packet (the compression key shown in octet 1 of figure 6 and 7), the first key having a first field which is utilized for distinguishing between different flows of compressed packets (the PID field as shown in figure 6 and 7). Suumaki also discloses with reference to figure 1A, that a PDCP (Packet Data Network Protocol) is located in the MS and the radio network controller. (Examiner interpreted the MS as the first entity and the RNC as the second entity), wherein the MS communicates with the RNC through node B, (Claimed the first entity communicates at least partially over an air interface with the second entity).

Regarding claims 26, 52, 78 and 104, Suumaki discloses a cellular telecommunication network (see figure 1A) and operation of the network that has a first entity which communicates with a second entity (telecommunication network as shown in figure 1A where the UE and all the network nodes include a protocol entity, see column 2, lines 38-41 for communication between a first entity and a second entity between any network component) by sending a packet having a compressed header (sending packets as shown in figure 6 and 7 having a compressed header, see header compression procedure column 5, lines 18-62), characterized in that the first entity also sends to the second entity a header compression key associated with the packet (the compression key shown in octet 1 of figure 6 and 7), the first key having a first field which is utilized for distinguishing between different flows of compressed packets (the PID field as shown in figure 6 and 7). Suumaki also discloses with reference to figure 1A, that a PDCP (Packet Data Network Protocol) is located in the MS and the radio

network controller. (Examiner interpreted the MS as the first entity and the RNC as the second entity). (Claimed at least one of the first entity and the second entity is situated at one of radio network controller node (RNC) and a user equipment unit (UE)).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 10, 36, 62 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suumaki et al, US (6,590,905) in view of Casner et al, Network Working Group RFC 2508, page 21.

Regarding claims 10, 36, 62 and 88, Suumaki discloses a cellular telecommunication network (see figure 1A) and operation of the network that has a first entity which communicates with a second entity (telecommunication network as shown in figure 1A where the UE and all the network nodes include a protocol entity, see column 2, lines 38-41 for communication between a first entity and a second entity between any network component) by sending a packet having a compressed header (sending packets as shown in figure 6 and 7 having a compressed header, see header compression procedure column 5, lines 18-62), characterized in that the first entity also sends to the second entity a header compression key associated with the packet (the compression key shown in octet 1 of figure 6 and 7), the first key having a first field

which is utilized for distinguishing between different flows of compressed packets (the PID field as shown in figure 6 and 7).

Suumaki discloses that the PID is included in a PDU (claimed compression key is included in a protocol data unit) but does not specify that the data unit is a link layer protocol data unit.

However, Casner discloses that the use of compression over a particular link is a function of the link-layer protocol. See Negotiating Compression page 21.

Therefore, it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to have the PDU of Suumaki being in conformance with link-layer protocol data unit so that IP/UDP/RTP compression can be provided (Casner). The advantage would be the ability of Suumaki system to be used in wireless Internet telephony with substantially smaller header bandwidth utilization.

3. Claims 24, 50, 76 and 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suumaki in view of Hamiti et al, US (6,751,209).

Regarding claims 24, 50, 76 and 102, Suumaki discloses a cellular telecommunication network (see figure 1A) and operation of the network that has a first entity which communicates with a second entity (telecommunication network as shown in figure 1A where the UE and all the network nodes include a protocol entity, see column 2, lines 38-41 for communication between a first entity and a second entity between any network component) by sending a packet having a compressed header (sending packets as shown in figure 6 and 7 having a compressed header, see header

compression procedure column 5, lines 18-62), characterized in that the first entity also sends to the second entity a header compression key associated with the packet (the compression key shown in octet 1 of figure 6 and 7), the first key having a first field which is utilized for distinguishing between different flows of compressed packets (the PID field as shown in figure 6 and 7).

Suumaki does not specify that the packet is an IP packet.

However, Hamiti discloses IP packets with compressed headers. See column 6, lines 65-67 and column 7, lines 1-14.

Therefore, it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to implement the compression method of Suumaki to IP packets in a similar manner as taught by Hamiti. An artisan would be motivated to so by recognizing the benefit of bandwidth reduction using header compression to IP packets in the system of Hamiti. The modification would consist of using the similar PDU parameters setting of Suumaki (Suumaki) column 5, lines 18-37) applied to the PDU of the IP packets of Hamiti. The advantage would be the ability of Suumaki system to be used in wireless Internet telephony with substantially smaller header bandwidth utilization.

### ***Conclusion***


4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Subbiah et al, US (6,366,961); Milton et al, US (6,721,333).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou Hassan can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHMED ELALLAM  
Examiner  
Art Unit 2662  
October 26, 2004



**JOHN PEZZI**  
**PRIMARY EXAMINER**